

Release Notes for CD-1.1 Public Software Bundle: Version 1.3

Introduction

The Center for Monitoring Research (CMR) is distributing version 1.3 of the CD-1.1 Public Software Bundle. This distribution contains software components for transmitting data from stations of the International Monitoring System (IMS) following the formats, protocols, and policies for Continuous Data CD-1.1, defined in the document [IDC3.4.3 Rev 0.2]. This document, as well as the CD-1.1 Public Software Bundle, is available for download from the CMR web site, <http://www.cmr.gov>.

Status of Development

Version 1.3 of the CD-1.1 Public Software Bundle contains software components that are in operational use in data center environments at CMR and the International Data Center (IDC) and at IMS stations in the U.S. (I57US) and the Ukraine (AKASG). Operational experience is limited due to the amount of data delivered with CD-1.1. However no major problems have been experienced to date and none are expected. Nevertheless, we anticipate that there may be minor problems in both data center and public bundle software that will come to light as additional users begin using the protocol.

Changes in this Version

This release contains only upgrades to previously released components. These upgrades are provided to address errors discovered during testing and operational use and to provide enhancements in features and performance. Changes to this version include:

1. Across the board changes to minimize missing data frames during faults
2. Changes to FrameEx for better startup behavior
3. Support for calibration information in the data frames
4. Changes to libfs for better recycling behavior
5. Fixes to the framelog metrics for better accuracy.
6. Upgrades to all CD-1.1 man pages
7. A new alert facility in liblog2

Supported Platforms

The CD-1.1 Public Software Bundle has been developed and tested for use under Solaris 2.7 running on Sun Microsystems computers, and under Linux (Redhat 7.1) running on an Intel platform.

Integration

Station operators or data centers that plan to use the CD-1.1 Public Software Bundle to transmit data in CD-1.1 protocol will need to integrate components of this distribution with other components. That is, this distribution is not a stand-alone package that will enable immediate transmission of CD-1.1 data without some custom software development. In particular, the station operator will need to supply software to read data in the native format and write these data to a

data store in CD-1.1 format, though a library is provided to write to the CD-1.1 data store. Additionally, authentication requirements will need to be met by integrating a solution not provided in the bundle.

Known Problems

The following is the list of known problems in this software bundle.

Table 1: Current Known Problems

Title	Description	Disposition
Incorrect version number	The version number of the protocol provided in the Connection Request Frame is incorrectly reported as version 2.0. Currently this does not affect connection performance as data center software also believes it is using version 2.0.	A coordinated upgrade is needed to match software definition with documented version numbering.
liblog2 no longer creates log directory	When the parameter log-make-dir is turned on (=1), the selected logging directory should be created if it does not exist. This feature is currently not available.	If the provided scripts are used, this discrepancy is not a problem. Alternatively, the log directory can be created manually.
Sync to disk when writing framelog records	The framelog header is updated before the framelog records themselves. If a system failure should occur between these two updates, the mismatch would cause the application to open and re-read all the framelogs, a time-consuming process, and potentially lose data.	The problem is currently under investigation.
Backlog of frames exceeds the throttle parameter.	Upon startup on the ExCtrlr, if the backlog of frames to process exceeds the throttle parameter defined by queued-max, then LIFO processing is not achieved (assuming a LIFO selection for ctrl-startup-sched-policy).	A change request has been written for this circumstance.

Limited Maintenance Support

Defects may be reported to the CMR by sending e-mail to user_services@cmr.gov. The CMR will acknowledge receipt of these defect reports and will provide patch releases for critical defects in CD-1.1 software components. Critical defects are those that prevent the software from operating reliably.